This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this presentation, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We assume no obligation to update any forward-looking statements, except as required by applicable law.
Company Overview

DKN-01: Target-Driven Development Program

- Only antibody successfully targeting DKK1 and the Wnt pathways
- Single agent responses in three tumor types
- High DKK1 biomarker levels and Wnt pathway mutations predict stronger response and survival outcomes
  - Esophagogastric cancer with Keytruda or paclitaxel
  - Gynecologic cancer as monotherapy or with paclitaxel
  - Prostate cancer as monotherapy or with docetaxel in pre-screened DKK1 biomarker high patients

TRX518: Enhancing Anti-Tumor Immune Responses

- Uniquely engineered GITR antibody turns off suppressor T cells and activates effector T cells
- Responses (including a Complete Response) and durable stable disease in monotherapy, gemcitabine combination, and PD-1 combination studies
- Combination study underway with Bavencio/cyclophosphamide
Targeting DKK1 in Cancer

- Inhibits canonical Wnt signaling and activates noncanonical Wnt signaling
- Oncogenic protein
- Suppresses the innate immune system
- Overexpressed in cancers with Wnt pathway activating mutations

Source: Kagey, et al. 2017
Selecting Patients for DKN-01 Therapy

- Poor outcome for patients with elevated levels of DKK1
- DKK1 high biomarker and Wnt pathway mutations being used to select patients in trials

Source: Kagey, et al. 2017
Biomarker-Driven DKN-01 Clinical Development Program

**Solid Tumors**
- Dose Escalation
  - NSCLC
    - Dose Expansion

**Esophagogastric Cancer**

**Gynecologic Cancer**

**Biliary Tract Cancer**
- DKN-01 + gemcitabine/cisplatin

**Esophagogastric Cancer**
- DKN-01 + paclitaxel

**Multiple Myeloma**
- DKN-01 + Rev/Dex

**Hepatocellular Carcinoma w/ Active Wnt Signaling**
- DKN-01 ± sorafenib

**Gynecologic Malignancies w/ Wnt Pathway Alterations**
- DKN-01 ± paclitaxel

**Metastatic Castrate-Resistant Prostate Cancer w/ Elevated DKK1**
- DKN-01 ± docetaxel
DKK1 Biomarker

DKK1 Low

DKK1 High

DKK1 RNA expression in tumor biopsies predicts patient outcomes
DKN-01 + Keytruda in PD-1 Naïve GEJ and Gastric Cancer Patients

Data as of March 15, 2019.

<table>
<thead>
<tr>
<th>Primary Location</th>
<th>Total n</th>
<th>PR (RECIST) n (%)</th>
<th>SD n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEJ + Gastric DKK1 High</td>
<td>9</td>
<td>5 (55.5%)</td>
<td>2 (22.2%)</td>
</tr>
<tr>
<td>GEJ + Gastric DKK1 Low</td>
<td>10</td>
<td>0</td>
<td>2 (20.0%)</td>
</tr>
</tbody>
</table>

DKK1 Biomarker Predicts Outcomes to DKN-01 + Keytruda
DKN-01 + Keytruda in PD-1 Naïve Esophagogastric Cancer Patients

DKK1 Biomarker Predicts Outcomes to DKN-01 + Keytruda

Data as of March 15, 2019.
### Targeting Gynecologic Cancer Patients with Wnt Pathway Mutations

<table>
<thead>
<tr>
<th>Groups</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Epithelial Endometrial</strong></td>
<td></td>
</tr>
<tr>
<td>Monotherapy</td>
<td>29</td>
</tr>
<tr>
<td>DKN-01 + paclitaxel</td>
<td>28</td>
</tr>
<tr>
<td><strong>Epithelial Ovarian</strong></td>
<td></td>
</tr>
<tr>
<td>Monotherapy</td>
<td>15</td>
</tr>
<tr>
<td>DKN-01 + paclitaxel</td>
<td>19</td>
</tr>
<tr>
<td><strong>Carcinosarcoma</strong></td>
<td></td>
</tr>
<tr>
<td>Monotherapy</td>
<td>10 (Planned)</td>
</tr>
<tr>
<td>DKN-01 + paclitaxel</td>
<td>20 (Planned)</td>
</tr>
</tbody>
</table>
DKN-01 Monotherapy Study in Endometrial Cancer Patients

Patients with Wnt Pathway Mutations Respond to DKN-01 Monotherapy

Data as of April 26, 2019.
DKN-01 Study in Gynecologic Cancer Patients

DKK1 Biomarker Score = 115
\textit{CTNNB1}(S37F)

DKK1 Biomarker Score = 11
No mutation

Wnt Activating Mutations Drive Higher DKK1 Levels

*\textit{p-val} = <0.0001 (unpaired t-test)
Targeting DKK1-Positive Prostate Cancer Patients
Collaboration with NYU Langone

- Androgen-receptor negative, non-neuroendocrine tumors express high levels of DKK1

- Enrolling DKK1-positive patients who have received one or more prior androgen receptor therapies

- Three expansion cohorts following dose escalation
  - Docetaxel/measurable disease
  - Docetaxel/without measurable disease
  - Monotherapy/received or refused prior taxane therapy
TRX518: Dual Immunotherapy Mechanism of Action Turns Off Suppressor T Cells and Activates Effector T Cells

- Unique among GITR antibodies
- Agonist without FcR binding
- Signals but does not deplete
TRX518 Alone and in Combination
Clinical Responses, Pharmacological Activity and Well Tolerated

- Monotherapy partial response in patient on study for over 2 years
  - 53% disease control rate with monotherapy in heavily pre-treated patients

- Combinations enhance response
  - Keytruda: Complete response in esophageal cancer
  - Opdivo: Partial response in PD-1 antibody experienced patient
  - Gemcitabine: Partial response and 57% disease control rate in gemcitabine-refractory patients

- Efficacy linked to pharmacodynamic markers
  - Reduction in tumor-protecting T-regulatory cells
  - Activation of tumor-targeting T-effector cells

- Excellent patient safety profile as monotherapy and in combinations
Complete Response on TRX518 + Keytruda

- 86 year old female with Esophageal Squamous Cell Carcinoma
- Biopsy shows increased CD8+ T cells and Granzyme B (GzmB)
- Remains on study (Over 12 months)
Triple Combination: Cyclophosphamide + TRX518 + Bavencio Chemotherapy Induction Followed by Immunotherapy

- Cyclophosphamide enhances GITR expression in proliferating immune cells, induces antigen release, and synergizes with GITR agonists.

- TRX518 + Bavencio is intended to enhance the antigen-specific, anti-tumor immune response.

<table>
<thead>
<tr>
<th>Targeted Populations</th>
<th>Breast Cancer</th>
<th>Prostate Cancer</th>
<th>Ovarian Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Triple Negative</td>
<td>Metastatic Castration Resistant</td>
<td>Platinum Refractory</td>
</tr>
<tr>
<td></td>
<td>Hormone Positive/Endocrine Refractory</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Study in collaboration with

- Pfizer
- EMD Serono
- Bavencio avelumab Injection 20 mg/mL
Near-Term Data

**Combination with KEYTRUDA® (July)**
- Response, PFS and OS data from 52 PD-1/PD-L1 therapy naïve patients
- Analysis of DKK1, PD-L1 and Microsatellite Stability biomarkers

**Monotherapy and Combination with paclitaxel (September)**
- Updated data on 91 patients at IGCS
- Correlation of activity with DKK1 levels and Wnt pathway mutations

**Combination with PD-1/PD-L1 Antibodies (Q4)**
- Activity in patients refractory to chemotherapy and PD-1 inhibitors
- Patient enrollment underway in TRX518 + cyclophosphamide + Bavencio® study